

## **Objectives and Agenda**

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 Shared Understanding on How Optimizing a Supply Chain Can Allow State Department (State) and Department of Defense (DoD) to "Do More Without More" in the Context of Joint Missions

#### **Agenda**

- Current Global / Federal Government Landscape
- Supply Chain Management and Optimization Strategies
- Large-Scale Logistics Problem and Solutions
- Case Studies
  - 1. U.S. Transportation Command
  - 2. Global Strategic Sourcing of Bananas
  - 3. Logistics Network Optimization



## **Current Global / Federal Government Landscape**

- 1. Global instability
- 2. Economic uncertainty and budget tightening
- 3. When natural disasters strike there is increased expectation that other nations will respond
- 4. Greater expectations for speed, safety, and reliability



# Landscape: DoD Working Hand-In-Hand with the Department of State

### **National security**

#### **Embassy operations**

#### Humanitarian relief for natural disasters

 Often, when natural disasters occur the U.S. embassy, USAID, and DoD are working along with UN agencies and non-governmental organizations



Members of the USAID DART Team along with Haitian volunteers unload donated tents and equipment at the orphanage, *Source*: USAID Photo Gallery, USAID website



Photo credit Fred W. Baker III, American Forces Press Service, Source: www.army.mil the official homepage of the US Army, Humanitarian assistance operations in Haiti



#### **UNCLASSIFIED**

# Landscape: Tsunami Strikes Japan... Inter-Agency / International Provide Help





Source: AFP PHOTO/U.S. NAVY/Command Master Chief Rachel Costello)



# Landscape: Supply Chain Disruptions Hampered Relief Efforts in Haiti

- Lack of distribution capacity: Roads were badly damaged; the Port au Prince airport, with already low capacity, was destroyed; and the port stands were in disarray
- Poor asset visibility: Due to lack of communication, there was no information regarding the location and quantity of aid materials in stock
- Last mile: It was difficult to securely and efficiently deliver aid to the right people and organizations



Source: USAID Image, Kendra Helmer: Personnel distribute USAID hygiene kits at a Cholera Treatment Center on Oct. 28, 2010 in Verrettes in the Artibonite department of Haiti. The center is run by USAID partner International Medical Corps.



## When Disaster Strikes.....

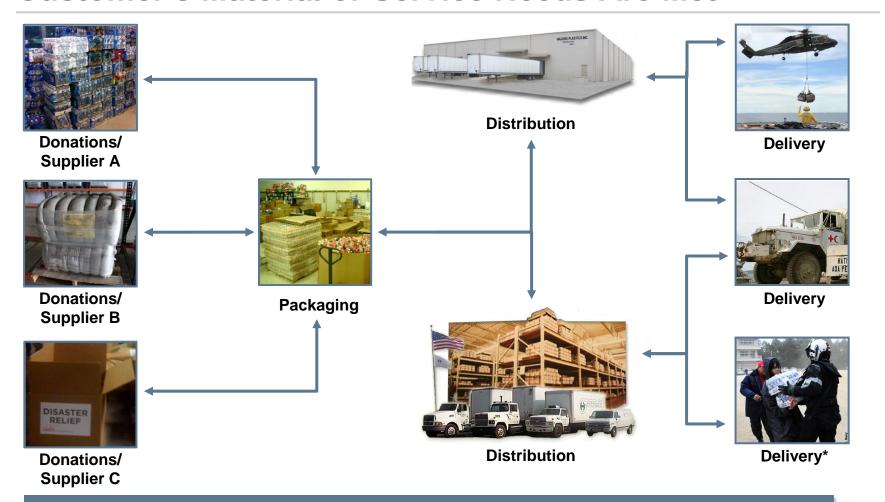


## ... an effective and efficient supply chain can save lives

Source: J. Levin ," Haiti's Post-Quake Grassroots Sustainable Agriculture Movement, Good Eater Colaborative, Jul 1, 2010.



# What is a Supply Chain: A Description of How a Customer's Material or Service Needs Are Met



How do we do more without more? Optimize the "Supply Chain!"



# Optimize Supply Chain: Use the Supply-Chain Operations Reference Model® (SCOR®) to Diagnose the Supply Chain

- What is SCOR®? A reference model developed by PRTM Management Consulting, put in the public domain, and endorsed by DoD and the Supply-Chain Council
- What can it do? It is a diagnostic tool for supply chain management spanning from the supplier's supplier to the customer's customer
- What is it based on? Five management processes



SCOR® is a registered trademark of the Supply-Chain Council, Inc.



# Optimize Supply Chain: Use the Supply-Chain Operations Reference Model® (SCOR®) to Diagnose the Supply Chain

Continued

- SCOR® model and humanitarian aid:
  - What are the similarities between Humanitarian aid and the commercial sector supply chain? Same five management processes, similar commodity products, multiple supplier and customer locations (can be directly to the person in need)
  - What are the differences between Humanitarian aid and the commercial sector supply chain? Funding and supplies (donations), no manufacturing but packaging, donor transparency





# Optimize Supply Chain: Key Tenets for Developing and Executing Effective and Efficient Supply Chain Operations

- Precise, responsive, and reliable supply chain <u>performance outcomes</u>
- Adaptability and flexibility of core and extended supply chains
- 3 Capitalizing on the depth and breadth of multi-sector capabilities
- 4 Leveraging impacted areas <u>"localized" supply chains</u> and <u>infrastructure</u>
- Defined governance and informed decision-making
- Timely and assured <u>movement of information and material</u>
- 7 Understanding <u>tradeoffs</u> between supply chain performance and "cost"



# The Common Elements of a Large-Scale, Disaster Relief Logistics Problem

- Complex, with multiple "supplier" and "customer" locations
  - **Suppliers:** State, DoD, other government agencies, NGO, multi-national, private sector, etc.
  - Customer locations: Accessibility may be difficult due to remote and/or inaccessible location(s)
- Data rich—with more transactional and other data-flows than can be reasonably managed through manual solutions
- Data challenge—normal data flows frequently damages or inaccessible
- Expensive—where one must strike a balance between promises of aid and the amount is large enough to warrant management and/or oversight







# Case Study #1: Applying "Key Tenets" to Align Distribution Processes and Optimize Iraq Warfighter Support

#### **Situation:** Examined DoD/GSA distribution network to:

- Increase the velocity and quality of warfighter support
- Improve unity of effort

# Globally-Optimized Performance Outcomes GSA Supplier Transporter Customer



# Case Study #1: Applying "Key Tenets" to Align Distribution Processes and Optimize Iraq Warfighter Support

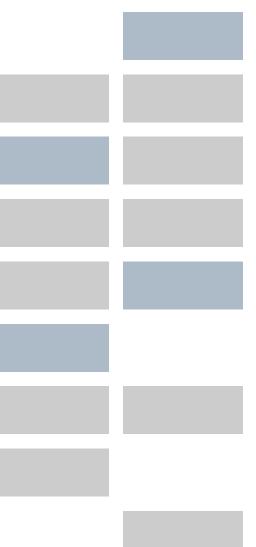
Results: Substantial performance improvement opportunities

Continued

- ~\$300–600M in annual savings
- ~30% improvement in precision, reliability
- By changing routing and consolidation across DoD organizations and agencies
  - Improved velocity by five days or 6%
  - Improved precision by six days or 17%
  - Net supply chain savings \$10M/year
- By increasing use of 40' containers and ensuring they are filled prior to shipment, provided \$20–30M/year in savings

Have State and the DoD analyzed prior response efforts to identify performance improvement opportunities? (Human impact? Costs?)





## Case Study #2: Global Strategic Sourcing of Bananas



# Case Study #2: Integrated and Deployed Global Sourcing Operations for Bananas

#### **Situation**

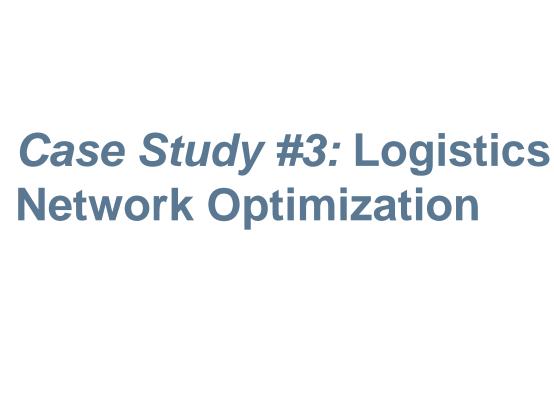
 A major branded produce company suffered from high European tariffs on bananas sourced from Latin America, resulting in high market costs and eroding market share

#### Results

- Implemented new sourcing and supply chain operations in Latin America to flexibly and profitably support new product lines with projected revenues of \$100-\$300M
- Developed new banana sources in African countries that significantly reduced banana landed costs by more than 20%, avoided tariffs, and eliminated waste

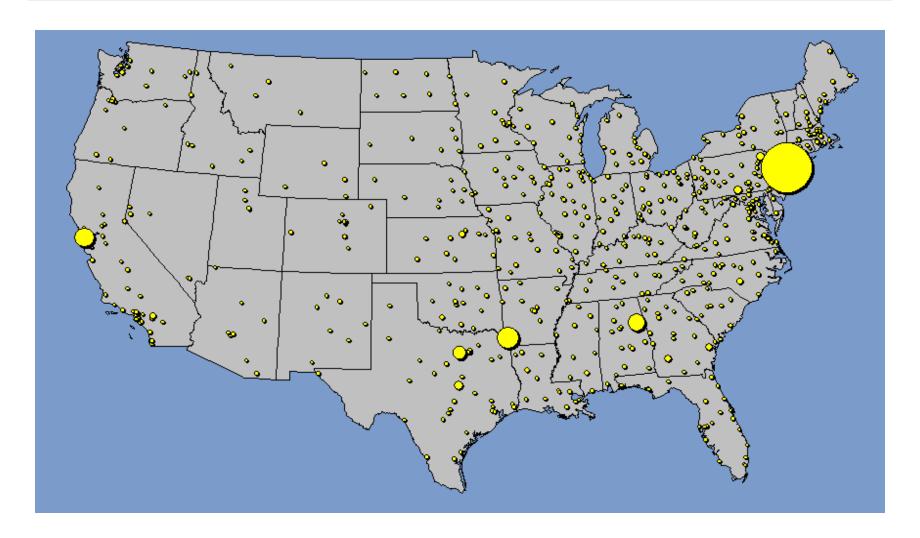
Can a more thorough approach to using the "untapped power of region's established processes, procedures, and relationships" both assist with Disaster Response and eliminate waste?







# Case Study #3: Deliver Any of 1,200 Items across the U.S. within Three Days, 95+% of the Time, 500,000 Times a Year





## Case Study #3: Logistics Network Optimization—Results

#### Supply chain network redesign

- Clarified roles and responsibilities across the supply chain to eliminate gaps and redundancies
- Integrated efforts companies global operations

#### **Data extraction**

- Trained personnel on managing large data sets
- Extracted key business intelligence from data sets
- Presented information to make more informed decisions

### **Metric optimization**

- Isolated sources of demand variability
- Increase efficiency

What are the "key business problems" associated with State and DoD Disaster Response?

(Note: "Business" is more than ROI, but saving lives)



## When Disaster Strikes...How to "Do More Without More"

In the current global economy establishing low-cost supply chain is mission critical

A key to successful disaster relief distribution chain is to plan ahead

Optimized supply chain for disasters can save lives

Creating an integrated, multi-agency supply chain, with the "key tenants" in mind will enable us to "Do More Without More"



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